COMMONWEALTH OF KENTUCKY
BEFORE THE
PUBLIC SERVICE COMMISSION

CASE NO. 2016-00371

ELECTRONIC APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES AND FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY

EXHIBITS DWG-2 AND DWG-3

OF DIRECT TESTIMONY OF DENNIS W. GOINS, PH.D.
ON BEHALF OF KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

March 3, 2017

EXHIBIT DWG-2

LG&E'S RESPONSES TO SELECTED REQUESTS FOR INFORMATION

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017**

Question No. 48

**Responding Witness: David S. Sinclair / William S. Seelye /
John P. Malloy / Robert M. Conroy / Counsel**

Q.1-48. Referring to the proposed Curtailable Service Rider:

a. Please provide in native format all workpapers, studies, analyses, and documents (all Excel worksheets with working formulas and intact links) supporting and/or underlying the development of the proposed rider.

b. Provide all studies and/or analyses that LG&E conducted concerning expected customer acceptance of and willingness to receive service under the proposed rider.

c. Identify and provide all documents provided to and correspondence with existing interruptible customers related to the development, implementation, and operation of the proposed CSR rider.

d. Provide all documents relating to any customer comments and/or feedback that LG&E received regarding the proposed reductions in rate credits under the CSR rider prior to LG&E's deciding to include the reduced credits in the proposed CSR rider.

e. Identify and provide all alternative rate credits for the CSR rider that LG&E considered but rejected, and describe in detail the reasons for rejecting the considered alternative(s).

A.1-48.

a. See attached. Responsive documents subject to attorney-client privilege or attorney work product protection are not being produced, and are noted in the Company's privilege log being filed in this proceeding. Also see the response to PSC 1-54.

b. The Company performed no surveys, analysis or studies concerning expected customer acceptance of or willingness to receive service under the proposed rider.

c. Beginning November 1, 2016 and thereafter, following the press release issued by the Company of a rate adjustment filing, Major Accounts Representatives communicated by email and/or telephone to inform their assigned customers of the filing. This proactive outreach is part of the role these employees serve with the company's key and largest customers. Then on November 16, 2016 and thereafter, the Major Accounts Representatives communicated with customers that the proposed rates had been filed. Numerous communications between Major Accounts Representatives and their assigned customers have occurred since then and continue to occur. If requested by the customer, in-person meetings are being scheduled to discuss the proposed changes and spreadsheets forecasting the calculations of the proposed rates are being provided. Attached is a template email document used to communicate with customers including those served under the Curtailable Service Rider.

   Across the Companies, two customers being served under Curtailable Service Rider requested and were provided a rate comparison used during an in-person meeting to discuss the proposed rates. Those rate comparisons are being provided with all customer-identifying information replaced with generic identifiers.

d. There are no such documents.

e. See the Company's objection filed on January 20, 2017.

Sebourn, Michael

From:	Sauer, Bruce
Sent:	Tuesday, October 11, 2016 4:25 PM
To:	Sebourn, Michael
Subject:	Comparison of Henry Hub, TGT Mainline, and Dominion South gas prices
Attachments:	Comparison of Henry Hub_TGT_Mainline_Dominion_South_Gas_Prices_10_11_16 _MSebourn.xlsx

Mike,

The attached workbook summarizes the comparison between Henry Hub, TGT Mainline, and Dominion South daily average prices. There is relatively little difference between Henry Hub and TGT Mainline, with TGT Mainline averaging $0.07/mmBtu lower than Henry Hub. Dominion South is considerably weaker, averaging $1.06/mmBtu lower than the Henry Hub. I've asked PIRA for an explanation.

For the last 12 months, the average prices are as follows:

Henry Hub	$2.25/mmBtu
TGT Mainline	$2.18/mmBtu
Dominion South	$1.29/mmBtu

Bruce

Attachment 2 is being provided in a separate file in Excel format.

Rate Case to be Submitted Initial Communication

Good morning.

As you may have seen or heard earlier this morning, Kentucky Utilities Company and Louisville Gas and Electric Company announced today that they are investing $2.2 billion in their electric and natural gas system to improve safety, reduce outage times and enhance service to customers. To recover some of the costs associated with these investments, Kentucky Utilities and Louisville Gas and Electric plan to request approval from the Kentucky Public Service Commission to adjust customer rates accordingly.

A press release was made this morning at 7am, and I have attached it for your reference. You will see there is some mention of the cost increases for the residential rate class. At this time, I do not have the respective information on the increases for Commercial or Industrial customer classes.

Next steps
As the filings are made public they will be posted to our website (https://lge-ku.com/our-company/regulatory), and I plan to forward you a copy at that time. I would be happy to meet with you and your management team in November and December to discuss the specific impacts to your business operations. The filing will request that the rate adjustments be effective in July 2017.

Please discuss this information within your organization and let me know if you have any questions or concerns.

Thanks,

Rate Case to be Submitted Follow-up Communication

Kentucky Utilities Company and Louisville Gas and Electric Company published paperwork with the Kentucky Public Service Commission for base rate adjustments. They are KPSC case numbers 2016-00370 and 2016-00371, respectively.

Additionally, the following legal notices will begin appearing in customer's bills and various newspapers around the state:

KU Current and Proposed Electric Rates
LG&E Current and Proposed Electric & Gas Rates

In these links you will find the proposed rate changes. Because every commercial and industrial customer has a different load factor, the impact to your facility will vary. The filing will request that the rate adjustments be effective in July 2017.

I would be happy to meet with you and look at a "side by side" comparison of current and proposed rates based upon the historical usage of your facility. Furthermore, if you have any questions or concerns about the proposed increases, please give me a call.

In the meantime, I hope you have a happy thanksgiving with your friends and family.

Kind regards,

LG&E RTS Comparison of Current and Proposed Rates

CA: XXXXXXX
Customer Name: Customer 1
Service Address: 138kV Service

Contract Capacity: 46,000 kVA
CSR Firm: 4,500 kVA

Existing Tariff

Basic Service Charge:	$ 1,000	
Energy Charge:	$ 0.03711	/kWh
Peak Demand Charge:	$ 4.85	/kVA
Interm. Demand Charge:	$ 3.30	/kVA
Base Demand Charge:	$ 3.05	/kVA
CSR Credit:	$ (6.40)	/kVA

Proposed Tariff

Basic Service Charge:	$ 1,400	
Energy Charge:	$ 0.03711	/kWh
Peak Demand Charge:	$ 6.98	/kVA
Interm. Demand Charge:	$ 5.12	/kVA
Base Demand Charge:	$ 1.52	/kVA
CSR Credit:	$ (3.56)	/kVA

24 Month Historical Information

Test Month Bill Date	Energy kWH	Measured On Peak kVA Demand	Measured Interm. kVA Demand	Measured Base kVA Demand
11/29/2016	20,866,200	39,457.90	39,457.90	39,457.90
10/27/2016	22,695,658	37,574.50	37,574.50	37,574.50
09/28/2016	10,167,500	30,283.90	30,283.90	30,283.90
08/30/2016	19,653,427	29,916.20	30,118.00	31,046.20
07/28/2016	19,701,487	30,145.20	30,297.90	30,693.30
06/29/2016	19,121,954	30,257.00	30,257.00	30,344.00
05/27/2016	20,231,205	29,911.80	30,132.70	30,759.60
04/28/2016	19,894,530	32,525.80	33,303.40	33,935.40
03/30/2016	23,418,925	37,498.80	37,498.80	37,498.80
02/29/2016	19,315,577	33,520.80	33,879.60	34,198.10
01/29/2016	17,920,385	30,421.80	31,006.60	31,079.60
12/30/2015	17,342,125	30,586.80	31,197.30	31,197.30
11/30/2015	17,293,286	32,056.10	32,056.10	32,056.10
10/28/2015	23,563,889	38,390.90	38,390.90	38,390.90
09/29/2015	20,333,344	38,030.50	38,030.50	38,070.30
08/28/2015	17,870,039	30,456.90	30,456.90	30,694.80
07/28/2015	14,837,000	30,550.80	30,694.80	30,694.80
06/29/2015	19,702,763	33,361.30	34,833.60	34,833.60
05/28/2015	23,808,903	40,645.60	40,645.60	42,453.10
04/29/2015	23,519,560	42,030.70	42,659.60	42,744.50
03/30/2015	25,060,943	40,141.30	40,141.30	40,141.30
02/27/2015	25,449,855	46,192.60	46,192.60	49,986.60
01/29/2015	24,244,068	40,222.30	40,512.90	46,175.80
12/30/2014	22,798,615	40,167.40	40,472.70	40,472.70

Existing Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 1,000	$ 774,345	$ 441,928	$ (223,731)	$ 993,543
$ 1,000	$ 842,236	$ 420,834	$ (211,677)	$ 1,052,393
$ 1,000	$ 377,316	$ 352,039	$ (165,017)	$ 565,338
$ 1,000	$ 729,339	$ 349,708	$ (163,955)	$ 916,091
$ 1,000	$ 731,122	$ 351,412	$ (165,107)	$ 918,428
$ 1,000	$ 709,616	$ 351,820	$ (164,845)	$ 897,590
$ 1,000	$ 750,780	$ 349,735	$ (164,049)	$ 937,466
$ 1,000	$ 738,286	$ 372,876	$ (184,342)	$ 927,821
$ 1,000	$ 869,076	$ 419,987	$ (211,192)	$ 1,078,871
$ 1,000	$ 716,801	$ 379,604	$ (188,029)	$ 909,375
$ 1,000	$ 665,025	$ 364,212	$ (169,642)	$ 860,595
$ 1,000	$ 643,566	$ 365,641	$ (170,863)	$ 839,345
				$ 10,896,856

Proposed Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 1,400	$ 774,345	$ 547,361	$ (124,450)	$ 1,198,655
$ 1,400	$ 842,236	$ 524,571	$ (117,745)	$ 1,250,462
$ 1,400	$ 377,316	$ 436,355	$ (91,791)	$ 723,280
$ 1,400	$ 729,339	$ 432,939	$ (91,200)	$ 1,072,478
$ 1,400	$ 731,122	$ 435,459	$ (91,841)	$ 1,076,140
$ 1,400	$ 709,616	$ 436,030	$ (91,695)	$ 1,055,350
$ 1,400	$ 750,780	$ 432,984	$ (91,252)	$ 1,093,911
$ 1,400	$ 738,286	$ 467,463	$ (102,540)	$ 1,104,609
$ 1,400	$ 869,076	$ 523,655	$ (117,476)	$ 1,276,656
$ 1,400	$ 716,801	$ 477,359	$ (104,591)	$ 1,090,968
$ 1,400	$ 665,025	$ 447,078	$ (94,363)	$ 1,019,140
$ 1,400	$ 643,566	$ 449,206	$ (95,042)	$ 999,130
				$ 12,960,781
			Change:	$ 2,063,925
				18.9%

LG&E RTS Comparison of Current and Proposed Rates

CA: XXXXXXX
Customer Name: Customer 1
Service Address: 138kV Service

Contract Capacity: 46,000 kVA
CSR Firm: 4,500 kVA

Existing Tariff

Basic Service Charge:	$	1,000	
Energy Charge:	$	0.03711	/kWh
Peak Demand Charge:	$	4.85	/kVA
Interm. Demand Charge:	$	3.30	/kVA
Base Demand Charge:	$	3.05	/kVA
CSR Credit:	$	-	/kVA

Proposed Tariff

Basic Service Charge:	$	1,400	
Energy Charge:	$	0.03711	/kWh
Peak Demand Charge:	$	6.98	/kVA
Interm. Demand Charge:	$	5.12	/kVA
Base Demand Charge:	$	1.52	/kVA
CSR Credit:	$	-	/kVA

24 Month Historical Information

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09/28/2016	10,167,500	30,283.90	30,283.90	30,283.90
08/30/2016	19,653,427	29,916.20	30,118.00	31,046.20
07/28/2016	19,701,487	30,145.20	30,297.90	30,693.30
06/29/2016	19,121,954	30,257.00	30,257.00	30,344.00
05/27/2016	20,231,205	29,911.80	30,132.70	30,759.60
04/28/2016	19,894,530	32,525.80	33,303.40	33,935.40
03/30/2016	23,418,925	37,498.80	37,498.80	37,498.80
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10/28/2015	23,563,889	38,390.90	38,390.90	38,390.90
09/29/2015	20,333,344	38,030.50	38,030.50	38,070.30
08/28/2015	17,870,039	30,456.90	30,456.90	30,694.80
07/28/2015	14,837,000	30,550.80	30,694.80	30,694.80
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03/30/2015	25,060,943	40,141.30	40,141.30	40,141.30
02/27/2015	25,449,855	46,192.60	46,192.60	49,986.60
01/29/2015	24,244,068	40,222.30	40,512.90	46,175.80
12/30/2014	22,798,615	40,167.40	40,472.70	40,472.70

Existing Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 1,000	$ 774,345	$ 441,928	$ -	$ 1,217,273
$ 1,000	$ 842,236	$ 420,834	$ -	$ 1,264,070
$ 1,000	$ 377,316	$ 352,039	$ -	$ 730,355
$ 1,000	$ 729,339	$ 349,708	$ -	$ 1,080,047
$ 1,000	$ 731,122	$ 351,412	$ -	$ 1,083,534
$ 1,000	$ 709,616	$ 351,820	$ -	$ 1,062,435
$ 1,000	$ 750,780	$ 349,735	$ -	$ 1,101,515
$ 1,000	$ 738,286	$ 372,876	$ -	$ 1,112,162
$ 1,000	$ 869,076	$ 419,987	$ -	$ 1,290,063
$ 1,000	$ 716,801	$ 379,604	$ -	$ 1,097,405
$ 1,000	$ 665,025	$ 364,212	$ -	$ 1,030,237
$ 1,000	$ 643,566	$ 365,641	$ -	$ 1,010,208
				$ 13,079,305

Proposed Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 1,400	$ 774,345	$ 547,361	$ -	$ 1,323,105
$ 1,400	$ 842,236	$ 524,571	$ -	$ 1,368,207
$ 1,400	$ 377,316	$ 436,355	$ -	$ 815,071
$ 1,400	$ 729,339	$ 432,939	$ -	$ 1,163,678
$ 1,400	$ 731,122	$ 435,459	$ -	$ 1,167,981
$ 1,400	$ 709,616	$ 436,030	$ -	$ 1,147,045
$ 1,400	$ 750,780	$ 432,984	$ -	$ 1,185,164
$ 1,400	$ 738,286	$ 467,463	$ -	$ 1,207,150
$ 1,400	$ 869,076	$ 523,655	$ -	$ 1,394,132
$ 1,400	$ 716,801	$ 477,359	$ -	$ 1,195,560
$ 1,400	$ 665,025	$ 447,078	$ -	$ 1,113,503
$ 1,400	$ 643,566	$ 449,206	$ -	$ 1,094,172
				$ 14,174,768
			Change:	$ 1,095,463
				8.4%

KU TODP Comparison of Current and Proposed Rates

CA: XXXXXX
Customer Name: Customer 2
Service Address: XXXXXXX

Contract Capacity: 10,722 kVA
CSR Firm: 4,000 kVA

Existing Tariff

Basic Service Charge:	$	300	
Energy Charge:	$	0.03432	/kWh
Peak Demand Charge:	$	5.89	/kVA
Interm. Demand Charge:	$	4.39	/kVA
Base Demand Charge:	$	3.34	/kVA
CSR Credit:	$	(6.50)	/kVA

Proposed Tariff

Basic Service Charge:	$	330	
Energy Charge:	$	0.03433	/kWh
Peak Demand Charge:	$	6.83	/kVA
Interm. Demand Charge:	$	5.34	/kVA
Base Demand Charge:	$	2.92	/kVA
CSR Credit:	$	(3.67)	/kVA

24 Month Historical Information

Test Month Bill Date	Energy kWH	Measured On Peak kVA Demand	Measured Interm. kVA Demand	Measured Base kVA Demand
12/21/2016	5,092,800	10,014.60	10,025.80	10,025.80
11/21/2016	5,721,600	11,171.40	11,171.40	11,171.40
10/21/2016	5,596,800	10,643.00	10,643.00	10,643.00
09/22/2016	5,798,400	10,483.40	10,483.40	10,483.40
08/23/2016	6,110,400	10,471.00	10,705.30	10,705.30
07/22/2016	4,435,200	9,876.60	9,898.60	9,984.40
06/22/2016	5,198,400	9,372.90	9,419.00	9,609.60
05/20/2016	4,752,000	8,816.50	8,964.60	8,964.60
04/21/2016	5,347,200	10,256.90	10,337.40	10,337.40
03/22/2016	5,059,200	10,091.70	10,091.70	10,091.70
02/23/2016	5,078,400	9,899.40	10,099.30	10,259.10
01/25/2016	5,424,000	9,551.20	10,059.90	10,059.90
12/22/2015	5,361,600	9,649.60	9,649.60	9,906.80
11/20/2015	5,203,200	10,377.40	10,469.50	10,533.50
10/22/2015	5,318,400	10,461.10	10,555.10	10,704.60
09/23/2015	6,028,800	10,678.60	10,678.60	10,678.60
08/21/2015	6,326,400	10,336.60	10,336.60	10,683.90
07/22/2015	4,833,600	9,848.70	9,873.80	9,873.80
06/23/2015	5,784,000	9,747.90	9,780.60	9,780.60
05/21/2015	4,848,000	9,395.60	9,455.70	9,575.80
04/23/2015	5,668,800	9,934.20	9,934.20	10,049.50
03/24/2015	5,179,200	9,786.10	9,805.40	9,805.40
02/23/2015	5,462,400	9,834.20	9,834.20	9,834.20
01/23/2015	5,212,800	9,522.00	9,881.30	9,881.30

Existing Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 300	$ 174,785	$ 136,485	$ (39,168)	$ 272,403
$ 300	$ 196,365	$ 152,154	$ (46,614)	$ 302,206
$ 300	$ 192,082	$ 144,958	$ (43,180)	$ 294,160
$ 300	$ 199,001	$ 142,784	$ (42,142)	$ 299,943
$ 300	$ 209,709	$ 144,426	$ (43,584)	$ 310,851
$ 300	$ 152,216	$ 134,976	$ (38,341)	$ 249,151
$ 300	$ 178,409	$ 128,652	$ (35,224)	$ 272,137
$ 300	$ 163,089	$ 121,226	$ (32,270)	$ 252,344
$ 300	$ 183,516	$ 140,321	$ (41,193)	$ 282,944
$ 300	$ 173,632	$ 137,449	$ (39,596)	$ 271,785
$ 300	$ 174,291	$ 136,909	$ (39,645)	$ 271,854
$ 300	$ 186,152	$ 134,020	$ (39,389)	$ 281,082
				$ 3,360,860

Proposed Rates

Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 330	$ 174,836	$ 154,558	$ (22,115)	$ 307,609
$ 330	$ 196,423	$ 168,576	$ (26,319)	$ 339,010
$ 330	$ 192,138	$ 160,834	$ (24,380)	$ 328,922
$ 330	$ 199,059	$ 158,891	$ (23,794)	$ 334,486
$ 330	$ 209,770	$ 159,991	$ (24,608)	$ 345,483
$ 330	$ 152,260	$ 151,624	$ (21,648)	$ 282,566
$ 330	$ 178,461	$ 145,623	$ (19,888)	$ 304,526
$ 330	$ 163,136	$ 139,396	$ (18,220)	$ 284,642
$ 330	$ 183,569	$ 156,565	$ (23,258)	$ 317,206
$ 330	$ 173,682	$ 154,124	$ (22,357)	$ 305,780
$ 330	$ 174,341	$ 152,851	$ (22,384)	$ 305,138
$ 330	$ 186,206	$ 150,263	$ (22,240)	$ 314,559
				$ 3,769,928
			Change:	$ 409,068
				12.2%

KU TODP Comparison of Current and Proposed Rates

CA: XXXXXX
Customer Name: Customer 2
Service Address: XXXXXXX

Contract Capacity: 10,722 kVA
CSR Firm: 4,000 kVA

Existing Tariff

Basic Service Charge:	$	300	
Energy Charge:	$	0.03432	/kWh
Peak Demand Charge:	$	5.89	/kVA
Interm. Demand Charge:	$	4.39	/kVA
Base Demand Charge:	$	3.34	/kVA
CSR Credit:	$	-	/kVA

Proposed Tariff

Basic Service Charge:	$	330	
Energy Charge:	$	0.03433	/kWh
Peak Demand Charge:	$	6.83	/kVA
Interm. Demand Charge:	$	5.34	/kVA
Base Demand Charge:	$	2.92	/kVA
CSR Credit:	$	-	/kVA

24 Month Historical Information				
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10/21/2016	5,596,800	10,643.00	10,643.00	10,643.00
09/22/2016	5,798,400	10,483.40	10,483.40	10,483.40
08/23/2016	6,110,400	10,471.00	10,705.30	10,705.30
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02/23/2016	5,078,400	9,899.40	10,099.30	10,259.10
01/25/2016	5,424,000	9,551.20	10,059.90	10,059.90
12/22/2015	5,361,600	9,649.60	9,649.60	9,906.80
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Existing Rates				
Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 300	$ 174,785	$ 136,485	$ -	$ 311,570
$ 300	$ 196,365	$ 152,154	$ -	$ 348,820
$ 300	$ 192,082	$ 144,958	$ -	$ 337,340
$ 300	$ 199,001	$ 142,784	$ -	$ 342,085
$ 300	$ 209,709	$ 144,426	$ -	$ 354,435
$ 300	$ 152,216	$ 134,976	$ -	$ 287,492
$ 300	$ 178,409	$ 128,652	$ -	$ 307,361
$ 300	$ 163,089	$ 121,226	$ -	$ 284,614
$ 300	$ 183,516	$ 140,321	$ -	$ 324,137
$ 300	$ 173,632	$ 137,449	$ -	$ 311,381
$ 300	$ 174,291	$ 136,909	$ -	$ 311,499
$ 300	$ 186,152	$ 134,020	$ -	$ 320,471
				$ 3,841,206

Proposed Rates				
Customer Charge	Energy Charge	Demand Charge	CSR Credit	Total
$ 330	$ 174,836	$ 154,558	$ -	$ 329,724
$ 330	$ 196,423	$ 168,576	$ -	$ 365,329
$ 330	$ 192,138	$ 160,834	$ -	$ 353,302
$ 330	$ 199,059	$ 158,891	$ -	$ 358,280
$ 330	$ 209,770	$ 159,991	$ -	$ 370,092
$ 330	$ 152,260	$ 151,624	$ -	$ 304,214
$ 330	$ 178,461	$ 145,623	$ -	$ 324,414
$ 330	$ 163,136	$ 139,396	$ -	$ 302,862
$ 330	$ 183,569	$ 156,565	$ -	$ 340,464
$ 330	$ 173,682	$ 154,124	$ -	$ 328,137
$ 330	$ 174,341	$ 152,851	$ -	$ 327,523
$ 330	$ 186,206	$ 150,263	$ -	$ 336,799
				$ 4,041,138
			Change:	$ 199,933
				5.2%

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 49

Responding Witness: William S. Seelye / David S. Sinclair

Q.1-49. Identify and provide all workpapers, studies, analyses, and documents related to any analyses conducted by or on behalf of LG&E concerning the potential customer-specific and service-area economic impacts of reducing the existing CSR credits.

A.1-49. There are no workpapers, studies, analyses, and documents related to any analyses conducted by or on behalf of LG&E concerning the potential customer-specific and service-area economic impacts of reducing the existing CSR credits.

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Response to First Set of Data Requests of
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Question No. 50

Responding Witness: Christopher M. Garrett

Q.1-50. For each existing CSR customer (identified only by reference number), please provide the estimated annual dollar impact of LG&E's proposed reductions in the CSR credit. Provide all workpapers supporting the estimated annual dollar impacts.

A.1-50. No such estimate was made. The Company does not forecast the annual dollar impact of the proposed reductions in the CSR credit by customer; therefore, the requested information is not available. Refer to Tab 66 of the Filing Requirements for present and proposed rates.

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 51

Responding Witness: David S. Sinclair

Q.1-51. Referring to existing Rider CSR:

a. For each customer (identified only by reference number) served under the rider, identify the total MW of curtailable/interruptible load under contract. Please indicate if the requested information is the same as information provided in the direct testimony of witness David S. Sinclair at 24: Table 6. This instruction applies to each subpart of this request.

b. State the number of months in which each customer in subpart (a) above has been continuously served under the existing rider or its predecessor.

c. For each customer identified in the subpart (a) above, provide the customer's firm contract demand if applicable under Option A.

d. For each customer identified in the subpart (a) above, provide the customer's Designated Curtailable Load if applicable under Option B.

A.1-51.

a. See attached. Customer 3 is the new customer from the note in the testimony of David S. Sinclair at 24, Table 6.

b. See the response to part a.

c. See the response to part a.

d. See the response to part a.

Utility	Company	CSR Date	Units	Contract Capacity	Reducible To (Firm Contract Demand Option A)	Contract Capacity Minus Firm Load	Continuous Months Served
LE	1	14-Jul	kVA	46,000	4,500	41,500	30
LE	2	10-Jul	kVA	30,000	6,000	24,000	78
LE	3	16-Aug	kVA	14,000	9,000	5,000	5

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Response to First Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated January 11, 2017

Question No. 52

Responding Witness: David S. Sinclair

Q.1-52. Referring to existing Rider CSR and its predecessors:

a. For each customer (identified only by reference number) served under the rider, identify the date, time, and duration of each curtailment called by LG&E in the past 60 months?

b. For each curtailment referenced in the response to subpart (a) above, specify whether the curtailment was a system reliability event or a buy-through event, identify the MW of load curtailment requested, and identify the MW of load that failed to comply with the curtailment request.

c. For each buy-through curtailment identified in the response to subpart (b) above, specify whether the customer bought through the curtailment, the amount of buy-through energy purchased, the price paid for such buy-through energy, and the source (system supply or market) of the buy-through price.

A.1-52. a. CSR Curtailments 01/01/2012 through 01/13/2017:

Customer	*Start Date/Time*	*End Date/Time*	*Hours*	*Type*	*Contract/CSR Firm or CSR Reduction*	*Load Not Compliant (kVA)*
1	01/06/2014 18:31	01/06/2014 19:42	1.18	Physical Curtailment	36,000 kVA demand; 3,500 kW firm	978
1	01/07/2014 07:14	01/07/2014 10:00	2.77	Physical Curtailment	36,000 kVA demand; 3,500 kW firm	64

b. See the response to part a.

c. No curtailments were buy-through curtailments.

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Response to First Set of Data Requests of
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Question No. 53

Responding Witness: David S. Sinclair

Q.1-53. Please provide a timeline for the last 10 years showing by year each curtailable/interruptible rate or rider offered by LG&E, the number of customers served under each rate/rider, and the total MW of interruptible or curtailable load served under each curtailable/interruptible rate/rider.

A.1-53. See attached.

CSR Offered

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CSR1	x	x	x							
CSR2	x	x	x							
CSR3	x	x	x							
CSR10				x	x	x	x	x		
CSR30				x	x	x	x	x		
CSR									x	x

Customers on each rider

	2010	2011	2012	2013	2014	2015	2016
CSR10	1	1	2	1	1		
CSR30	1	1	1	1	1		
CSR						2	3

Maximum Curtailable(MW)

	2010	2011	2012	2013	2014	2015	2016
CSR10	25.0	25.0	25.0	22.7	26.0		
CSR30			32.5	32.5	41.5		
CSR						65.5	70.5

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
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Question No. 54

Responding Witness: David S. Sinclair / John P. Malloy

Q.1-54. Please identify all reports, studies, and/or analyses conducted by on behalf of LG&E or its parent company in the past 5 years related in total or in part to retail interruptible or curtailable electric service in Kentucky.

A.1-54. Each year, the Companies estimate the hourly integrated load reduction associated with curtailable customers that are treated as a capacity resource. The table below shows forecasted curtailable capacity for both LG&E and KU in MW by year, up to the current year, from the previous ten business plans.

Hourly Integrated Curtailable Capacity

Year	2008 Plan	2009 Plan	2010 Plan	2011 Plan	2012 Plan	2013 Plan	2014 Plan	2015 Plan	2016 Plan	2017 Plan
2008	121									
2009	121	93								
2010	121	93	93							
2011	121	93	93	93						
2012	121	93	93	93	93					
2013	121	93	93	93	98	119				
2014	121	93	93	93	100	122	122			
2015	121	93	93	93	102	125	125	133		
2016	121	93	93	93	102	125	125	133	136	
2017	121	93	93	93	102	125	125	133	136	130

Also, see the Companies' Industrial DSM Potential Assessment filed with the Commission in Case No. 2014-00003, particularly the section concerning load control beginning at page 59. The assessment is available at: http://psc.ky.gov/pscecf/2014-00003/rick.lovekamp@lge-ku.com/05262016071923/Closed/LGE_KU_Ind_DSM_Potential_Study_2014-00003_05-26-16.pdf

LOUISVILLE GAS AND ELECTRIC COMPANY

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**Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017**

Question No. 55

Responding Witness: David S. Sinclair

Q.1-55. Please explain in detail how LG&E (acting alone or in conjunction with affiliates) treats interruptible/curtailable load in:

a. Developing its long-run load forecast.

b. Determining its long-run need for future supply-side resources.

c. Determining its need for operating reserve capacity.

d. Providing ancillary services.

e. Determining whether such load qualifies as spinning reserve.

A.1-55.

a. The Company considers interruptible/curtailable load as a capacity resource.

b. See response to (a). The Company considers CSR as a capacity resource available to meet planning reserve margin requirements in resource planning decisions. CSR capacity is assumed to remain at the current level through the analysis period.

c. CSR capacity does not affect operating reserves, which consist of spinning reserves and non-spinning (supplemental) reserves. Both spinning and supplemental reserves must be available to serve load within a 15 minute period. For curtailable load to qualify as operating reserves, the curtailable load must be fully removable from system load within a 15 minute period. The execution of a CSR event requires a 60 minute notice. Therefore, CSR does not qualify as an operating reserve and is not considered when determining the need for operating reserve capacity.

d. As noted in part c., CSR capacity cannot be used for spinning and supplemental operating reserves. Similar limitations also exist for considering CSR capacity for contingency and regulating reserves. Contingency reserves must be available within 15 minutes and regulating reserves must be immediately reactive to Automatic Generation Control to provide normal regulating margin.

e. See the response to part c.

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Question No. 56

Responding Witness: Robert M. Conroy

Q.1-56. Given existing laws and regulations in Kentucky, please identify and describe in detail each non-LG&E market option and/or mechanism under which an existing CSR customer could have its curtailable load served.

A.1-56. LG&E is not aware of any such market option or mechanism.

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Question No. 57

Responding Witness: Robert M. Conroy

Q.1-57. Given existing laws and regulations in Kentucky, please identify and describe in detail each non-LG&E market option and/or mechanism through which an existing CSR customer could sell its interruptible load as a demand response resource.

A.1-57. LG&E is not aware of any such market option or mechanism.

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Response to First Set of Data Requests of
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Question No. 58

Responding Witness: Christopher M. Garrett

Q.1-58. Please explain in detail how LG&E treats curtailment buy-though revenues in setting base rates and/or modifying its Fuel Adjustment Clause.

A.1-58. The last time LG&E had curtailment buy-through revenues was in September 2011 and there are no curtailment buy-through revenues included in this case. If a curtailment buy-through would occur, the buy-through revenues (fuel cost) would be deducted from the power purchase fuel cost for the month in the Fuel Adjustment Clause calculation.

Total FAC recoverable fuel cost = generation fuel + (power purchase fuel – curtailment buy-through revenues/fuel) – off system sales fuel.

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Response to First Set of Data Requests of
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Question No. 59

Responding Witness: William S. Seelye

Q.1-59. Please identify and explain in detail how LG&E treats test-year curtailment buy-though revenues in the electric cost-of-service study filed in this case. This request refers to the methodology that LG&E would use even if it received no test-year CSR buy-through revenue.

A.1-59. There are no buy-through revenues included in the test-year.

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Dated January 11, 2017

Question No. 60

Responding Witness: William S. Seelye

Q.1-60. Please identify and explain in detail how LG&E treats test-year curtailment credits paid to CSR customers in the electric cost-of-service study filed in this case. This request refers to the methodology used by LG&E, and not to any specific amount of test-year CSR credits.

A.1-60. CSR credits are treated as miscellaneous credits. In the cost of service study, as with other miscellaneous revenues and credits, CSR credits are allocated to all customer classes.

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 61

Responding Witness: David S. Sinclair

Q.1-61. Please identify and explain in detail all situations other than a system reliability event in which LG&E would need or want to physically curtail load under the CSR rider.

A.1-61. With no restriction requiring all generating units to be committed prior to curtailing load under the CSR rider, the CSR reduction would be used as an economic resource to save fuel costs up to the amount of hours specified in the tariff.

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 62

Responding Witness: David S. Sinclair

Q.1-62. Referring to the direct testimony of David S. Sinclair at 24:11 – 25:3:

a. Confirm that the key condition discussed at 24:16-18 refers only to physical curtailments under Rider CSR.

b. Since Rider CSR (or its predecessors) was first approved by the Commission, please identify each instance in which LG&E would have issued a physical curtailment request but was prevented from doing so by the key condition restriction discussed at 24:16-18.

A.1-62. a. The key condition referenced in Mr. Sinclair's testimony that requires all system generating units be dispatched or in the process of being dispatched before curtailments applies to physical curtailment events.

b. Prior to August 1, 2010, the Rider CSR did not require that all generating units be dispatched before issuing a curtailment request. While the Company is not able to identify the specific hours for additional physical curtailment, it is likely that CSR would be implemented consistent with the response in Question 61 in the absence of the key condition restriction.

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Question No. 63

Responding Witness: David S. Sinclair

Q.1-63. Referring to the direct testimony of David S. Sinclair at 25:4-9:

a. Please provide the Annual Generation Forecast.

b. For each of the eight forecast CSR curtailment events, identify and explain in detail the underlying load and system conditions driving LG&E's expected need for physical curtailment.

A.1-63.

a. See "Section 7 – Generation Forecast" on pages 20-22 of Mr. Sinclair's testimony and the "2017 Business Plan Generation & OSS Forecast" attached at Tab 16, Section 16(7)(c), Item H of the Companies' Applications.

b. Of the eight forecasted curtailment events, two pertained only to a curtailable customer served in the Old Dominion Power service territory in Virginia, which is governed by different rules with regard to curtailment. The Companies' underlying load and system conditions for the peak hour of each of the remaining six events are summarized in the table below. Also see the response to PSC 2-54.

Curtailment Event Date	Event Time	Total Generation Capacity (MW)	Peak Hourly Load During Event (MW)	Generation Unavailable – Planned Outage (MW)	Generation Unavailable – Other (MW)	Spinning Reserves (MW)	Purchases (MW)
7/18/2017	Hours 13-15	8,136	6,406	6	1,317	406	0
7/19/2017	Hours 13-16	8,136	6,411	6	1,039	679	0
8/9/2017	Hours 14-16	8,136	6,807	6	1,628	232	538
3/12/2018	Hour 8	8,261	4,025	1,498	2,286	452	0
3/14/2018	Hour 7-8	8,261	4,095	1,498	2,330	338	0
3/15/2018	Hour 10	8,261	4,030	1,498	2,436	297	0

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Response to First Set of Data Requests of
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Question No. 64

Responding Witness: John P. Malloy

Q.1-64. Please identify each existing DSM and/or energy efficiency program that LG&E proposes to either close to new customers or limit incremental program participation by existing participants during the Forecasted Test Period.

A.1-64. In the Forecasted Test Period, the Companies are not planning to end any of the current DSM programs or limit incremental program participation. The Companies' current DSM programs are approved through December 2018. The Companies will complete their re-evaluation of the programs by the end of 2017.

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Dated January 11, 2017

Question No. 65

Responding Witness: David S. Sinclair

Q.1-65. Referring to the direct testimony of David S. Sinclair at 26:5 – 27:3:

a. Please define primary as used in the phrase primary combustion turbines.

b. Please define (and if possible, quantify) meaningful as used in the phrase meaningful annual load growth.

c. For each of the past 10 years, please provide LG&E's annual load growth.

d. Please provide LG&E's forecast of annual load growth for each of the next 10 years.

A.1-65.

a. See the response to PSC 2-55(a).

b. Meaningful load growth in this context is load growth that would require resource additions in the next three to five years, and would therefore require actions in the near term to begin developing these resources.

c. See attached.

d. See attached.

65c

	Actual Volumes (GWh)	Actual Sales Growth*	WN Volumes (GWh)	WN Sales Growth	Peak Hour (MW)	Peak Growth
2007	12,658	5.79%	12,269	1.09%	2,834	3.86%
2008	12,083	-4.54%	12,038	-1.88%	2,502	-11.71%
2009	11,405	-5.61%	11,596	-3.67%	2,524	0.88%
2010	12,338	8.18%	11,772	1.52%	2,852	13.00%
2011	11,641	-5.65%	11,445	-2.78%	2,704	-5.19%
2012	11,837	1.68%	11,775	2.89%	2,731	1.00%
2013	11,698	-1.17%	11,732	-0.37%	2,529	-7.40%
2014	11,817	1.02%	11,686	-0.39%	2,481	-1.90%
2015	11,767	-0.42%	11,722	0.31%	2,594	4.55%
2016	11,947	1.53%	11,811	0.76%	2,543	-1.97%

*relative to prior year

65d

	Forecasted Volumes (GWh)	Forecasted Sales Growth**	Forecasted Volumes (GWh)	Forecasted WN Sales Growth	Peak Hour (MW)	Peak Growth
2017	11,929	-0.15%	11,929	1.00%	2,734	7.50%
2018	11,922	-0.05%	11,922	-0.05%	2,732	-0.06%
2019	11,941	0.16%	11,941	0.16%	2,738	0.23%
2020	11,943	0.02%	11,943	0.02%	2,738	-0.03%
2021	11,944	0.00%	11,944	0.00%	2,724	-0.50%
2022	11,955	0.09%	11,955	0.09%	2,736	0.45%
2023	11,969	0.12%	11,969	0.12%	2,739	0.12%
2024	12,010	0.34%	12,010	0.34%	2,748	0.31%
2025	12,035	0.21%	12,035	0.21%	2,752	0.16%
2026	12,063	0.23%	12,063	0.23%	2,757	0.17%

**2017 compared to both 2016 actual and 2016 WN; others relative to prior year

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Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 66

Responding Witness: David S. Sinclair

Q.1-66. Please provide LG&E's current estimated cost in current dollars of an installed combustion turbine. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this estimate.

A.1-66. The Companies' current estimated combustion turbine capital cost is $624/kW in 2016 dollars. See the Companies' 2014 Integrated Resource Plan ("IRP"), Volume III, "2014 Reserve Margin Study" and "2014 Resource Assessment" reports. The Companies' estimated cost data for a simple-cycle combustion turbine in 2013 dollars can be found in Section 4.4.1, Table 5, on page 15 of the "2014 Reserve Margin Study." The 2014 IRP value in 2013 dollars was escalated at 2 percent per year to 2016 dollars.

See also the response to AG 1-296.

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Dated January 11, 2017

Question No. 67

Responding Witness: David S. Sinclair

Q.1-67. Please provide a levelized fixed charge rate for a new combustion turbine using LG&E's cost of capital and tax rates. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A.1-67. The levelized fixed charge rate for a new combustion turbine is 8.12%. See attached.

Generation Planning & Analysis
Revenue Requirement Model
For Fixed Charge Rate & Levelized Cost Factor

Assumptions

Book Basis	$100
Tax Basis	$100
Book Life - Years	30
Tax Life - Years	15
Months in First Year	12
Base Property Tax Rate	0.150%
Property Tax Rate Escalation	0.00%
O&M Escalation Rate	2.000%
O&M Base	$1
Discount Rate	10.60%
Cost of Capital	6.48%
Income Tax Rate	38.900%
Insurance Rate	0.085%
Insurance Escalation Rate	0.00%
Tax Equivalent Rate	0.00%

Fixed Charge Rate	**0.0812**
Levelized Cost Factc	**0.73**

CAPITAL STRUCTURE

Debt	47.00%	4.10%
Common	53.00%	10.0%

Tax Depreciation Schedule	macrs									
		1	1	1	1	1	1	1	1	1
	Year	1	2	3	4	5	6	7	8	9
	Months	12	12	12	12	12	12	12	12	12
Deferred Taxes										
Tax Depreciation		5.00	9.50	8.55	7.70	6.93	6.23	5.90	5.90	5.90
Book Depreciation		1.67	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
Deferred Tax		1.30	2.40	2.03	1.70	1.40	1.13	1.00	1.00	1.00
Rate Base	Constr Period									
Beginning Balance	100	100	97	91	86	81	76	72	67	63
Less: Book Depreciation		(1.67)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)
Less: Deferred Taxes	-	(1.30)	(2.40)	(2.03)	(1.70)	(1.40)	(1.13)	(1.00)	(1.00)	(1.00)
Ending Balance	100	97	91	86	81	76	72	67	63	59
EndYear Rate Base		97	91	86	81	76	72	67	63	59
Debt Return (Interest)		1.87	1.76	1.66	1.56	1.47	1.38	1.30	1.22	1.13
Preferred Stock Return		-	-	-	-	-	-	-	-	-
Common Equity Return		5.14	4.84	4.55	4.29	4.04	3.80	3.57	3.34	3.11
Property Tax		0.075	0.148	0.143	0.138	0.133	0.128	0.123	0.118	0.113
A&G		0.042	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Revenue Requirements (non-equity)		3.65	5.32	5.22	5.11	5.02	4.93	4.84	4.75	4.66
Revenue Requirements (equity)		8.42	7.92	7.45	7.02	6.61	6.22	5.85	5.47	5.09
Discount Rate		1.00	0.94	0.88	0.83	0.78	0.73	0.69	0.64	0.61
Present Value	$127.97	12.07	12.44	11.18	10.05	9.04	8.15	7.33	6.59	5.90
Fixed Charge Rate		8.12%								
O&M		1	1	1	1	1	1	1	1	1
Present Value		0.90	0.83	0.77	0.71	0.65	0.60	0.56	0.51	0.47
Levelized Cost Factor		0.73								
		$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12
	$127.97	$8.12	$7.62	$7.16	$6.72	$6.31	$5.93	$5.57	$5.23	$4.91

Generation Planning & Analysis
Revenue Requirement Model
For Fixed Charge Rate & Levelized Cost Factor

Assumptions

Book Basis	$100
Tax Basis	$100
Book Life - Years	30
Tax Life - Years	15
Months in First Year	12
Base Property Tax Rate	0.150%
Property Tax Rate Escalation	0.00%
O&M Escalation Rate	2.000%
O&M Base	$1
Discount Rate	10.60%
Cost of Capital	6.48%
Income Tax Rate	38.900%
Insurance Rate	0.085%
Insurance Escalation Rate	0.00%
Tax Equivalent Rate	0.00%

Tax Depreciation Schedule	macrs									
		1	1	1	1	1	1	1	1	1
	Year	10	11	12	13	14	15	16	17	18
	Months	12	12	12	12	12	12	12	12	12
Deferred Taxes										
Tax Depreciation		5.90	5.90	5.90	5.90	5.90	5.90	2.95	-	-
Book Depreciation		3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
Deferred Tax		1.00	1.00	1.00	1.00	1.00	1.00	(0.15)	(1.30)	(1.30)
Rate Base	Constr Period									
Beginning Balance	100	59	54	50	46	41	37	33	30	28
Less: Book Depreciation		(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)
Less: Deferred Taxes	-	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	0.15	1.30	1.30
Ending Balance	100	54	50	46	41	37	33	30	28	25
EndYear Rate Base		54	50	46	41	37	33	30	28	25
Debt Return (Interest)		1.05	0.96	0.88	0.80	0.71	0.63	0.57	1	0
Preferred Stock Return		-	-	-	-	-	-	-	-	-
Common Equity Return		2.88	2.65	2.42	2.19	1.96	1.73	1.57	1.46	1.35
Property Tax		0.108	0.103	0.098	0.093	0.088	0.083	0.078	0.073	0.068
A&G		0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Revenue Requirements (non-equity)		4.57	4.48	4.40	4.31	4.22	4.13	4.06	4.02	3.98
Revenue Requirements (equity)		4.72	4.34	3.97	3.59	3.21	2.84	2.56	2.39	2.21
Discount Rate		0.57	0.53	0.50	0.47	0.44	0.42	0.39	0.37	0.34
Present Value	$127.97	5.28	4.71	4.19	3.72	3.29	2.89	2.59	2.35	2.13
Fixed Charge Rate										
O&M		1	1	1	1	1	1	1	1	1
Present Value		0.44	0.40	0.37	0.34	0.32	0.29	0.27	0.25	0.23
Levelized Cost Factor										
		$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12
	$127.97	$4.61	$4.33	$4.07	$3.82	$3.59	$3.37	$3.17	$2.97	$2.79

Generation Planning & Analysis
Revenue Requirement Model
For Fixed Charge Rate & Levelized Cost Factor

Assumptions

Book Basis	$100
Tax Basis	$100
Book Life - Years	30
Tax Life - Years	15
Months in First Year	12
Base Property Tax Rate	0.150%
Property Tax Rate Escalation	0.00%
O&M Escalation Rate	2.000%
O&M Base	$1
Discount Rate	10.60%
Cost of Capital	6.48%
Income Tax Rate	38.900%
Insurance Rate	0.085%
Insurance Escalation Rate	0.00%
Tax Equivalent Rate	0.00%

Tax Depreciation Schedule	macrs									
		1	1	1	1	1	1	1	1	1
	Year	19	20	21	22	23	24	25	26	27
	Months	12	12	12	12	12	12	12	12	12
Deferred Taxes										
Tax Depreciation		-	-	-	-	-	-	-	-	-
Book Depreciation		3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33
Deferred Tax		(1.30)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)	(1.30)
Rate Base	Constr Period									
Beginning Balance	100	25	23	21	19	17	15	13	11	9
Less: Book Depreciation		(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)	(3.33)
Less: Deferred Taxes	-	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Ending Balance	100	23	21	19	17	15	13	11	9	7
EndYear Rate Base		23	21	19	17	15	13	11	9	7
Debt Return (Interest)		0	0	0	0	0	0	0	0	0
Preferred Stock Return		-	-	-	-	-	-	-	-	-
Common Equity Return		1.24	1.13	1.03	0.92	0.81	0.70	0.59	0.49	0
Property Tax		0.063	0.058	0.053	0.048	0.043	0.038	0.033	0.028	0.023
A&G		0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
Revenue Requirements (non-equity)		3.93	3.89	3.84	3.80	3.75	3.71	3.67	3.62	3.58
Revenue Requirements (equity)		2.03	1.86	1.68	1.50	1.33	1.15	0.97	0.80	0.62
Discount Rate		0.32	0.30	0.29	0.27	0.25	0.24	0.22	0.21	0.20
Present Value	$127.97	1.93	1.74	1.57	1.42	1.28	1.15	1.03	0.92	0.82
Fixed Charge Rate										
O&M		1	1	1	2	2	2	2	2	2
Present Value		0.21	0.19	0.18	0.17	0.15	0.14	0.13	0.12	0.11
Levelized Cost Factor										
		$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12	$8.12
	$127.97	$2.62	$2.46	$2.31	$2.17	$2.04	$1.92	$1.80	$1.69	$1.59

Generation Planning & Analysis
Revenue Requirement Model
For Fixed Charge Rate & Levelized Cost Factor

Assumptions

Book Basis	$100
Tax Basis	$100
Book Life - Years	30
Tax Life - Years	15
Months in First Year	12
Base Property Tax Rate	0.150%
Property Tax Rate Escalation	0.00%
O&M Escalation Rate	2.000%
O&M Base	$1
Discount Rate	10.60%
Cost of Capital	6.48%
Income Tax Rate	38.900%
Insurance Rate	0.085%
Insurance Escalation Rate	0.00%
Tax Equivalent Rate	0.00%

Tax Depreciation Schedule	macrs				
		1	1	1	0
	Year	28	29	30	31
	Months	12	12	12	12
Deferred Taxes					
Tax Depreciation		-	-	-	-
Book Depreciation		3.33	3.33	3.33	1.67
Deferred Tax		(1.30)	(1.30)	(1.30)	(0.65)
Rate Base	Constr Period				
Beginning Balance	100	7	5	3	1
Less: Book Depreciation		(3.33)	(3.33)	(3.33)	(1.67)
Less: Deferred Taxes	-	1.30	1.30	1.30	0.65
Ending Balance	100	5	3	1	0
EndYear Rate Base		5	3	1	0
Debt Return (Interest)		0	0	0	0
Preferred Stock Return		-	-	-	-
Common Equity Return		0	0	0	0
Property Tax		0.018	0.013	0.008	0.000
A&G		0.085	0.085	0.085	0.042
Revenue Requirements (non-equity)		3.53	3.49	3.45	1.71
Revenue Requirements (equity)		0.44	0.27	0.09	0.00
Discount Rate		0.18	0.17	0.16	0.15
Present Value	$127.97	0.73	0.65	0.57	0.26
Fixed Charge Rate					
O&M		2	2	2	2
Present Value		0.10	0.09	0.09	0.08
Levelized Cost Factor					
		$8.12	$8.12	$8.12	$8.12
	$127.97	$1.49	$1.40	$1.31	$1.23

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 68

Responding Witness: David S. Sinclair

Q.1-68. Please provide the estimated fixed O&M for a new combustion turbine in current dollars. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A.1-68. The Companies' current estimated combustion turbine fixed O&M cost is \$29.7/kW-yr in 2016 dollars, which comprises \$21.9/kW-yr for firm gas transport and \$7.7/kW-yr for other fixed O&M. See the response to Question No. 66. The 2014 IRP values in 2013 dollars were escalated at 2 percent per year to 2016 dollars.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 69

Responding Witness: David S. Sinclair

Q.1-69. Please provide LG&E's required reserve margin for capacity planning. Provide all workpapers, studies, analyses, and documents supporting and/or underlying this response.

A.1-69. The Companies' planning reserve margin range is 16% - 21%. See the Companies' 2014 Integrated Resource Plan ("IRP"), Volume III, "2014 Reserve Margin Study." See also the response to AG 1-296.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 70

Responding Witness: Robert M. Conroy

Q.1-70. Please provide a copy of LG&E's most recent integrated resource plan.

A.1-70. See the response to AG 1-296.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 71

Responding Witness: David S. Sinclair

Q.1-71. Please provide all workpapers, studies, analyses, and documents underlying and supporting LG&E's proposed change in the natural gas price index used to determine the automatic buy-through price in Rider CSR.

A.1-71. See the response to Question No. 48(a).

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to First Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated January 11, 2017

Question No. 72

Responding Witness: Robert M. Conroy

Q.1-72. Referring to the direct testimony of Robert M. Conroy at 16:20-23:

a. Explain in detail the conditions under which LG&E would no longer "continue to allow the current customers under the CSR service schedule to remain CSR customers for an indefinite period of time…."

b. Explain in detail why "the Company is not proposing to remove CSR from its tariff at this time."

A.1-72.

a. LG&E has not established such a set of conditions.

b. LG&E is not proposing the remove CSR from its tariff at this time because existing CSR customers' curtailable load is included as a resource in existing plans and could help LG&E meet its reserve margin requirements in the future.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated February 7, 2017

Question No. 25

Responding Witness: Robert M. Conroy

Q.2-25. Referring to LG&E's response to KIUC 1-48(c), Attachment 1:

a. Did LG&E conduct similar rate comparisons for CSR customers that did not request such comparisons?

b. If the answer to the preceding request is yes, please provide such comparisons in native format with working formulas and all links intact.

A.2-25.

a. No, LG&E did not conduct similar rate comparisons for CSR customers that did not request such comparisons.

b. Not applicable.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to Second Set of Data Requests of Kentucky Industrial Utility Customers, Inc. Dated February 7, 2017

Question No. 26

Responding Witness: David S. Sinclair

Q.2-26. Referring to LG&E's responses to KIUC 1-55(c)-(e):

a. Please explain in detail whether CSR load subject to a 10-minute notice of interruption would qualify as operating reserve as defined in the response to KIUC 1-55(c).

b. Explain in detail how LG&E treats load subject to the interruption provisions of Rate FLS (System Contingencies and Industry Performance Criteria section) in meeting system operating reserve requirements.

A.2-26.

a. As indicated in the response to KIUC 1-56(c), for curtailable load to qualify as operating reserves, the curtailable load must be fully removable from system load within a 15 minute period. Therefore the load must first be in place on the system (the Company cannot be assured that the curtailable customer has load to reduce) and second, must be removable within a 15 minute period. Thus, if a CSR load was subject to a 10-minute notice, the load must first be occurring on the system and second must be removed within 5 minutes after the 10-minute notice period expired. Furthermore, for interruptible load to qualify as operating reserve, no restrictions on the number or frequency of requests could be in place.

b. LG&E does not consider FLS load in meeting its operating reserve requirements, which consist of spinning reserves and non-spinning (supplemental) reserves. Both spinning and supplemental reserves must be available to serve load within a 15 minute period. For curtailable load to qualify as operating reserves, the curtailable load must be fully removable from system load within a 15 minute period. The execution of a FLS interruption requires a 5 minute notice, can last no longer than ten minutes, and may not be fully removable from the system. Therefore, FLS does not qualify as an operating reserve and is not considered when determining the need for operating reserve capacity.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to Second Set of Data Requests of
Kentucky Industrial Utility Customers, Inc.
Dated February 7, 2017

Question No. 27

Responding Witness: David S. Sinclair

Q.2-27. Referring to LG&E's response to KIUC 1-62(b):

a. Please describe and explain in detail the justification for the August 2010 change in Rider CSR that restricted interruption requests to periods in which all generating units were dispatched.

b. Please identify each occasion and the exigent circumstances under which LG&E would have invoked a physical curtailment of CSR load since January 2014 to the present if the interruption restriction noted in the preceding request had not been in place.

A.2-27.

a. Prior to August 2010, the CSR tariff effective February 6, 2009 allowed for curtailments for any reason for a limited number of hours annually.

Effective February 6, 2009 the CSR1 tariff stated:

> "Customer may, at Customer's option, contract with Company to curtail service upon notification by Company. Requests for curtailment shall not exceed two hundred (200) hours per year nor shall any single request for curtailment be for less than thirty (30) minutes or for more than fourteen (14) hours per calendar day, with no more than two (2) requests for curtailment per calendar day within these parameters. Company may request or cancel a curtailment at any time during an hour, but shall give no less than twenty (20) minutes notice when either requesting or canceling a curtailment."

Effective August 1, 2010, the CSR10 tariff stated:

> "Company may request at its sole discretion up to 100 hours of physical curtailment per year without a buy-through option during system reliability events. For the purposes of this rider, a system reliability event is any condition or occurrence: 1) that impairs KU and LG&E's ability to

maintain service to contractually committed system load; 2) where KU and LG&E's ability to meet their compliance obligations with NERC reliability standards cannot otherwise be achieved; or 3) that KU and LG&E reasonably anticipate will last more than six hours and could require KU and LG&E to call upon automatic reserve sharing ("ARS") at some point during the event."

This new language was agreed to as part of the settlement as described in the June 7, 2010 Stipulation and Recommendation (pages 227 and 230) between the Companies and several parties (including the Kentucky Industrial Utility Customers, Inc.) in the rate proceedings in Case No. 2009-00549. The Stipulation and Recommendation can be found at:
http://psc.ky.gov/PSCSCF/2009%20cases/2009-00549/20100608_KU_and_LGE_Stipulation_and_Recommendation.PDF.

Note, the new language did not explicitly restrict "interruption requests to periods in which all generating units were dispatched" although as a practical matter, the circumstances described in the tariff would likely result in all available units being committed.

b. See the response to KIUC 1-62b. As stated, the Company is not able to identify the specific hours for additional physical curtailment. Also see the Company's response to KIUC 1-61.

LOUISVILLE GAS AND ELECTRIC COMPANY

CASE NO. 2016-00371

Response to the Attorney General's Supplemental Data Requests
Dated February 7, 2017

Question No. 79

Responding Witness: John P. Malloy / David S. Sinclair

Q-79. Provide:

a. The cost per (avoided) MW used for the cost-benefit tests in the Companies' most recent DSM application (2014-00003); and

b. The cost per (avoided) MW used in the Companies' most recent Integrated Resource Plan (2014-00131).

A-79.

a. The cost per avoided MW used in DSM application 2014-00003 was \$99.92/kW-year.

b. The cost per avoided MW used in the Companies' 2014 Integrated Resource Plan was \$99.92/kW-year.

EXHIBIT DWG-3

BIP ANALYSIS OF CSR CREDITS

Kentucky Utilities Company and Louisvillle Gas & Electric Company
Production Costs functionalized to Peak
Based on 12 Months Ended June 30, 2018

Description			KU BIP Peak Unadjusted	LGE BIP Peak Unadjusted	Combined BIP Peak Unadjusted
Plant			$ 1,270,954,484	$ 741,780,593	$ 2,012,735,077
Accumulated Depreciation			$ 506,456,928	$ 286,222,757	$ 792,679,685
Net Plant			$ 764,497,556	$ 455,557,836	$ 1,220,055,392
Total Working Capital			28,600,478	22,043,175	$ 50,643,653
Accumulated Deferred Income Taxes			156,281,533	90,683,035	$ 246,964,568
Accumulated Deferred Investment Tax Credit			24,034,541	-	$ 24,034,541
Net Cost Rate Base			$ 612,781,961	$ 386,917,976	$ 999,699,937
Rate of Return			7.29%	7.23%	
Return			$ 44,671,045	$ 27,975,999	$ 72,647,044
Depreciation Expenses			$ 45,505,094	$ 24,484,475	$ 69,989,569
Non-Burdened Non-Fuel Operation and Maintenance Expenses			$ 33,774,624	$ 23,807,553	$ 57,582,177
Burdened Non-Fuel Operation and Maintenance Expenses					
Income Taxes	0.3856	0.3864	$ 20,951,836	$ 13,307,334	$ 34,382,845
Property Taxes (& Other for LGE)			$ 4,462,862	$ 5,416,077	$ 9,878,939
Other Taxes (KU)			$ 2,317,433		$ 2,317,433
Amortization of ITC (LGE)				$ (166,921)	$ (166,921)
Revenue Requirement			$ 151,682,894	$ 94,824,518	$ 246,631,087
Nameplate Capacity					
Cost per kW per Month (Nameplate Capacity)					
Net Peak Demand on Plant (Form 7, Pages 402-403, line 6)			1,492,399	827,855	2,320,253
Cost per kW per Month (Net Peak Demand on Plant)			$ 8.47	$ 9.55	$ 8.86
Loss Factor (Transmission)			0.0281	0.0281	0.0281
Cost per kW per Month (Transmission)			$ 8.71	$ 9.82	$ 9.11
Loss Factor (Primary)			0.0613	0.0613	0.0613
Cost per kW per Month (Primary)			$ 9.02	$ 10.17	$ 9.44
Thompson Summer Peak Capacity			5,041,120	2,796,380	7,837,500
BIP Peak Functionalization Factor			29.60%	29.60%	
Summer Peak Capacity Functionalized to BIP Peak			1,492,399	827,855	2,320,253